

GV

489

G5



Class GV489

Book .G5

Copyright N^o

COPYRIGHT DEPOSIT.

PROGRESSIVE PHYSIOLOGICAL EXERCISES



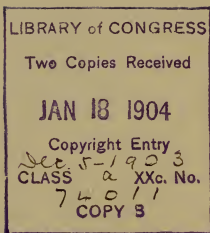
BY

G. H. GEIGER, M. D.

Specialist in
Treatment of Nervous Diseases

PRICE \$5.00

Press of J. W. Johnson,
Dayton, Ohio.
1903



RAA

G V 489
G 5

50
4295

*Copyrighted 1903
By G. H. Geiger.*

PHARL INT
221000 70



THE following pages illustrate and describe in detail the essential movements in my Course of Physiological Exercises. The object is to remove all waste and aid in body-building ; not to produce abnormal muscular development.

After practical tests for more than thirty (30) years, as a medical practitioner I have found these exercises the best adapted to produce complete circulation of the blood throughout the body, enriching the blood with oxygen, arousing torpid liver, aiding in digestion, exciting the kidneys to healthy action, keeping the spinal vertebrae in normal position, correcting abnormal curvatures, removing pressure from the spinal chord, soothing the nerves, relieving the strain which produces "nervous prostration," stimulating and strengthening the genital organs. These results follow because the impurities are forced out of the nerve and muscle cells, the waste tissue is expelled, and new tissue is allowed to form and upbuild the everlasting changes which are going on in the physical organism.

I make no absurd claim to invention or discovery, for all these exercises have long been known and practiced to develope strength and vigor, alertness and energy of mind and body. Whatever of merit there is in this course of movements, lies in the progressive arrangement of them, which admits of there being done by any person with safety, producing in the shortest time both lasting and beneficial results when taken as prescribed, and faithfully and intelligently carried out.

G. H. G.

No.....

Date.....

Measurements of

.....
Address

.....
Occupation

Neck.....

Chest, Normal
(arms at sides)

.....
Chest, Expanded
(arms at sides)

.....
Chest Contracted
(arms at sides)

.....
Waist.....

Biceps... ..

Forearm.....

Thigh.

Calf,

Weight

.....

DIRECTIONS.

The exercises in this book are done without weights or apparatus.

Opposing muscles are off-set, one against another. While one set of muscles is rigid the opposing ones are relaxed. This seems a plain statement of a fact, yet many persons fail to appreciate it, as my experience in orally directing my patients has often shown.

How to Make a Muscle Tense or Rigid.

Stand erect, head well up, shoulders drawn back, abdomen drawn in, legs straight, knees and heels together, weight resting over the instep and toes and but lightly on heels, arms at sides, palms of hands forward. This position will hereafter be noted by the single word "*Poise*," to save repeating; "take first position," or "as shown in Fig. . ." *Don't forget this.*

Exercises should always be taken before a mirror, then you see yourself as others see you. I use the left arm to illustrate rigidity, as it can be seen and felt easily by placing the right hand on the biceps, that is, the upper arm from elbow to shoulder.

POISE. Hold left arm close to side, the fingers turned back as far as you can, and remember you must not allow them to be closed in this exercise, slowly raise the hand, bending the arm at the elbow.

Determine to hold the upper arm close to the side and press down with the shoulder, making the elbow the pivot and the hand and fore-arm the weight to be lifted. The movement is entirely in the elbow. Draw the fingers back with all your strength and determine to draw (*not lift*) the hand and forearm up until it touches the upper arm. Do not allow the fingers to close, and without relaxing the rigidity of the upper arm return the forearm to position.

Do this exercise with the utmost energy and determination of mind and body that you can possibly exert. The slower the movement and the harder the pull the greater the rigidity. Set your jaws firmly. A firmly set jaw is the citadel of tension. This will also teach you never to breathe through the mouth. Never permit your thought to wander from the exercise you are doing. The mind must co-operate with the body.

If the mind is not in every movement and at every instant of time determining to make the muscles as rigid as it is possible to make them, the exercising of the body is time wasted. One minute of exercise of mind and body completely centered in the exercise is worth more than one hour of listless movements of the muscles while the attention is elsewhere.

When you have mastered this movement, "learned the trick," with the left arm, try it on the right arm until you have thus gained rigidity of the biceps.

You note there is no danger in taking this exercise, as you furnish your own weights and you do no more than you are able to do. Precautions will be given where needed that will direct you in your movements, and you will be prepared for each succeeding movement.

I suggest that every person, no matter how strong or how weak, consult his physician and be guided by his directions while pursuing this course, as it may be found beneficial to vary the movements to suit individual cases.



BREATHING.

The best results in exercising are obtained by giving strict attention to proper breathing while exercising.

Deep Breathing

Consists in expelling every particle of air from the lungs at every exhalation and completely filling the lungs at every inhalation. Give the lungs all the space possible. Inhale through the nostrils. Mouth closed.

How to Breathe.

POISE. Place fore-finger on right nostril, extend muscles of abdomen as much as possible, inhale as rapidly as you can through the left nostril. Hold breath long enough to change finger of right hand to the left and allow the breath to escape through the right nostril, which was closed in inhaling. Draw in the muscles of the abdomen in exhaling as much as you can. This will aid in forcing all the air out of the lungs.

Air inhaled through one nostril should be exhaled through the other.

Pay no attention to the lungs, they will take care of themselves. The exercise consists in extending

the abdominal muscles as you inhale and contracting or drawing back the muscles of the abdomen to force the air out as you exhale.

Continue this exercise until you have complete control of the abdominal muscles. Limit this exercise to five minutes at any one time until you have mastered the movement. This exercise may be taken in a sitting posture as well as standing. It should be performed in both positions so as to get complete control of the abdominal muscles while standing or sitting.

This exercise may also be taken while lying flat on the back, hands under head. If breathing in this position makes you dizzy, do not breathe so deeply until you are accustomed to it. Continue this five to ten minutes daily. Pay particular attention to the abdominal muscles, the abdomen rising as you inhale and falling as you exhale. This exercise should not be neglected, as it is important in acquiring a correct habit of deep breathing.

Never allow yourself to "HOLD THE BREATH" while exercising. The object of exercise is to increase the circulation of the blood and purify it in its circulation through the lungs. Purification can not be effected unless there is full and continuous breathing every instant of time the movements are kept up. Don't forget this important fact.

Measure Your Breathing

by a mental count. For the first week in taking the breathing exercises count, mentally, from one

to ten at each inhaling and exhaling. Increase until you can count twenty as you inhale or exhale.

Too much importance cannot be attached to proper breathing. Not only the lungs, but the heart, stomach, liver and kidneys are all nourished by the regular circulation of the blood, and the richer the blood in oxygenation the better the blood and the greater the nourishment. Proper breathing is absolutely necessary for nervous depletion. Don't forget that exercise and breathing must go together, the one is no more important than the other. While the air should be drawn into the lungs as rapidly as possible, it should be allowed to escape slowly. Breathing exercises should be taken three times a day for at least five minutes each when you can do the exercise without interruption and give entire attention to it. As you continue these exercises they may be prolonged each time for any period desired after a few weeks.

THE NECESSITY OF EXERCISE.

The need of exercise is admitted by all, but those who need it most do not admit the necessity applies to them. The ever increasing mental activity which is taking the place of manual labor makes all men "brain workers."

Mental labor attracts blood to the brain. When the labor ceases there is an excess of blood in the brain which must be returned to other parts of the body if the brain and nerves are to exist in a normal condition. Proper exercise and breathing will restore the equilibrium of the circulatory system.

Exercise to be Beneficial.

First:—The mind and body must act together and the attention concentrated on the parts of the body exercised. Second:—The circulation of the blood must be increased throughout the entire system without overtaxing the heart's action. Third:—The capillary system must be compressed and dilated by alternate tension and relaxation of antagonistic muscles. Fourth:—The blood must be purified by the oxygen of the air as it circulates through the lungs, this necessitates proper breathing. Fifth:—The heart's action must not be interfered with by exercising too many muscles at

any one time. Sixth :—The waste tissue must be thrown off without retarding or tearing down new tissue that is being built up. Seventh :—The muscles must be fed without becoming “muscle-bound.” Eighth :—The nerves must be soothed and kept in normal condition and not over excited by the exercise.

How Accomplished.

The above results can be best obtained by that course of exercise which takes the least amount of time and expense to do it. The body furnishes its own means without the aid of any mechanical devices or apparatus. This is done by off-setting muscle against muscle as already explained. The alternate rigidity and relaxation of muscles produce like effects upon the capillary system. This aids the circulation of the blood and is the prime object of all exercises.

The complete circulation of the blood feeds the nerves and muscles and prevents congestion. The tired mind finds rest when it is not compelled to work through an exhausted brain. The over-worked brain is relieved of its burden. All parts of the body perform their natural functions. Sleep knits up the ravelled sleeve of care at the death of each day's life and ushers in a brighter and happier morning.

WATER.

Before beginning your exercises in the morning drink a glass of cold water. Drink two more at intervals between the different exercises and another glass when you have finished.

Water is especially beneficial in cases of constipation. A glass of water will also be beneficial before retiring.

Rests Between Movements.

At night a rest of a few seconds should be taken at end of each movement. Just enough time to allow all the muscles to relax. In taking Parts I and II, there is no need of rests in the mornings unless you feel you specially need it. In that event ten seconds will be amply sufficient between any two exercises.



Part I.

No. 1.



POISE. Draw right hand up as shown in figure on left; follow directions given on page 6 to make upper arm rigid. Keep the upper arm rigid as you lower it and as the right hand goes down draw the left hand up. Continue these movements as long as you can keep up the rigidity of the biceps. Not to exceed ten times with each hand. Keep count on the arm in which you have the least rigidity. This will bring out its strength equal to the other arm.

If your energy flags, rest a few seconds and repeat. Don't continue the movements longer than you can maintain rigidity. The slower the movements the more rigidity. Keep the jaws firmly set and breathe regularly. Inhale as one arm goes up and exhale as the other goes down. Take all exercises half as many times in the morning as at night. Exercise before a mirror. Clothing should be removed before exercising so you can see the action of muscles. Room should be warm enough for comfort and well ventilated.

No. 2.



POISE. Place hand on stationary object to balance body. Alternately raise body on toes and heels as shown in figure, and be sure to make rigid the muscles of the calves of legs. Relax as heels

touch floor. In lifting the body make all the effort with the toes as if pressing them into the floor. Try to lift your weight mainly by the movement of the toes. Repeat ten to twenty times at night, omit in morning. While resting on heels raise the toes as far as you can, keeping muscles of calves tense.

No. 3.

Position as shown on left. Upper arms rigid. Palms up. Fingers turned back. Bring hands to position as shown in figure on right. Keep elbows on level with shoulders, the elbows alone bending. The rigidity is in upper arm only. Don't relax as you straighten the arms. Breathe naturally and put your utmost energy of body and mind into exercise. Ten times at night, five times in morning.



No. 4.

Position as shown on left. Upper arms rigid. Palms forward. Bring hands down to position, shown on right. Relax all muscles and return arms to position on left. Inhale as you bring arms down and exhale as they are thrown back. Ten times at night, half as many in morning. Muscles of shoulders and back should be made as rigid as possible in this exercise. Legs straight and knees and ankles pressed firmly together, weight on toes and instep.



No. O.

Lie on back as shown in figure on left. Arms folded on chest. Keep legs straight, do not bend



knees or lift heels from floor while you raise head and shoulders as far from floor as you can. The movement is solely in the muscles over the stomach. The rigidity is in these muscles. Relax as body touches floor. Inhale on lifting head and shoulders and exhale on return. Repeat as often as you can, not to exceed five times at night, half as many in morning. Increase daily until you reach fifteen to twenty-five times at night. As you increase movement let head drop back to serve as weight without lessening the tension of muscles of neck.



Bathing.

After completing the movements, nights and mornings, take a cold sponge bath. Do this as speedily as possible and rub body vigorously with coarse towel until you get up a healthy glow of skin.

This bath is both soothing to the nerves and refreshing to the entire body. Care should be taken to avoid any draughts of air while bathing.

Observations.

I have found in my practice that prescribing exercises, as well as prescribing drugs, requires judgment. A movement which one patient can do easily may distress another and *vice versa*. It is not all in the amount of muscles or the lack of muscular development. The state of the nerves and the condition of the heart, lungs, stomach, liver, kidneys and bowels must be reckoned with in every movement of exercise.

Disordered nerves and weak or irregular heart action must be noted, also the condition of the lungs and stomach.

For instance : Exercise No. 3 will often cause the patient to complain of pains and soreness at the base of the brain. This is caused by allowing the elbows to drop below the level of the shoulders which will cause a straining at the back of the head. If the elbows are kept well up this soreness will soon disappear.

The floor movement may sometimes cause inflammation of the eyes or pain back of the eyes or produce nausea, a pain in the muscles of the abdomen. While rigidity of the muscles is insisted upon, too much tensility in some parts of the body must be guarded against.

These exercises in many instances will lame the muscles of an athlete. You must expect some soreness and when the soreness is painful or likely to aggravate instead of quieting the nerves, or disturbs the heart's action, or produces too much lameness, the movements should be fewer in number and rigidity eased up until the soreness or lameness disappears, but the exercise that produces distress should not be left off, only lightened.

I have avoided all technical language that the lay mind may grasp the thought herein expressed.



Part II.

Do not attempt Part II until you have mastered all the movements of Part I, and can do them all without distress or making the muscles lame or sore. This ought not to take longer than one week and two weeks at the outside. Begin with No. 1 and do 1, 2, 3 and 4 as in Part I. Increase your speed but do not let up on rigidity. Try to increase rigidity, breathing and speed in 1, 2, 3 and 4.

No. 5.

POISE. Raise arms on level with shoulders, palms down, and hands closed as in figure on left. In making fist, the forefinger should come directly under the thumb, the second joint of the thumb pressed down on the forefinger with first joint of the thumb at right angle to the second joint. The first joint of the thumb is now squarely across the second joints of the first and second fingers. This may seem a trifle particular but it is important, as the utmost rigidity of the muscles of the forearm can only be obtained by keeping thumb in this position. Raise the fist, not the arm, as high as you can. Make wrist rigid, now bring fist down as far as you can. Repeat not less than ten times at night, half as many in morning. The movement is solely in the wrist. Put all the rigidity possible in the wrist and move slowly up and down. Set jaws firmly and breathe naturally.



No. 6.



POISE. Place hand on stationary object to keep balance. Take position as shown on left. Rise, making muscles of legs rigid. Relax as you go down. Repeat ten times nights, five times mornings. Increase at night until twenty-five to thirty times are reached.

No. 7.



POISE. Take position as shown on left, palms down, fingers turned back. Muscles of upper arms, shoulders and neck rigid, chest thrown out, shoulder blades drawn back. Draw arms down to sides. Relax as arms go up. Inhale as arms go down. Exhale on upward movement.



No. 8.

Take position on left. Palms up, fingers turned back. Make upper arms rigid. Bring hands to position on right. Relax as your arms come down. Inhale as arms go up. Ten times at night, five in morning. Chest should be thrown forward and abdomen drawn back in this movement, knees held firmly together.



No. 00.

Floor Exercise.

Take position in figure. Hands under shoulders, fingers turned out and slightly forward, without allowing the back to bend, lower the body on hands and toes until chin touches floor. Recover. Press knees firmly together, do not allow abdomen to touch floor or knees to bend. Three times at night, once or twice morning and increase one daily until you reach fifteen to twenty times nights and half as many in morning.



Do Nos. 0 and 00 as last movements. By this time you ought to be able to do these movements ten to fifteen times nights with half the number mornings.

Do not attempt any further movements until all those in Parts I and II can be done with great rigidity and all the muscles thus exercised cease to be lame or sore. Continue cold sponge baths throughout entire course. Repeat these exercises at least two weeks before taking up Part III.

The object of exercising arms and legs first is to increase circulation in the extremities of the body as they are farthest removed from the heart, which is the pumping station of the system. They have also prepared you to successfully do the floor exercise of Part II without danger of over-straining muscles of abdomen.

Part III.

Do all the exercises of Parts I and II from to 1 to 8 inclusive, add 9, 10, 11 and 12.

No. 9.



POISE. Tense muscles of back and abdomen. Draw up right hand as in figure until fingers of right hand fall in arm pit, left hand reaching down as far as you can on leg, knees straight. Lower right hand and raise left. Do not lean forward. Ten times at night, five times in morning. Breathe naturally.

No. 10.

POISE. Balance body by placing hand on stationary object. Tense left leg, knees straight. Rest weight on left leg. Tense right leg, knee straight. Contract muscles above hip and draw right leg up as far as you can by muscles named. Do not sway body to right or left. Same movement with left leg. Alternate this movement from one leg to the other until muscles above hips tire.

No. 11.

POISE. Place palms of hands on hips, fingers forward. Tense legs. Make rigid muscles of abdomen and back without bending knees, sway from right to left. Movement solely in hips. Continue movement until muscles tire. Lift the Chest

↳ L. of C.

and breathe as deeply as you can. This movement should be as rapid as possible without losing your balance or allowing any other parts of body to move.

No. 12.

Take position as in No. 11. Muscles of back, abdomen and legs tense. Sway body forward and back. Hips are the pivot. Movement slow at first to get as much rigidity in muscles of back and abdomen as you can. Continue until muscles tire. At each successive exercise increase speed. Increase rigidity with speed until you can do the movements ten to fifteen times in as many seconds. Breathe deeply as possible. Finish with floor exercises Nos. 0 and 00.

Do not attempt Part IV until you have completely mastered Part III. This ought to take two weeks.

Part IV.

Do all the exercises except Nos. 0 and 00.



No. 13.

Take position as on left, tense the muscles of shoulders and back, raise arms, muscles rigid, as in figure on right, breathe naturally, repeat ten times at night, five times in mornings.



No. 14.



Position as on left. Tense muscles of back and abdomen, raise body to erect position. The movement is solely in abdomen and back. No movement of arms at shoulders. Breathe naturally. Continue until muscles tire.

No. 15.



Position as on left. Place feet under bed or some heavy piece of furniture so they will not lift from floor. Place palms of hands under thighs as a safety measure. Let body down until you lie flat on back. Raise body slowly to a sitting position. If you need the assistance of the arms place palms under thighs. Movement is solely in hips. As you gain in ability to rise without hands under thighs hold arms at side. Next fold arms on chest and repeat until muscles tire.

Add Nos. 0, 00.

Six weeks ought to have been spent in taking movements heretofore given. If you have been able to put the rigidity into all these movements as directed, your circulation has been improved; your chest expansion increased from 2 to 4 inches, if you have paid particular attention to deep breathing. If you have been constipated or troubled with indigestion or afflicted with insomnia they ought to have disappeared.

Part V.

Do all the movements described heretofore in the order given in Part IV. If you find it takes too much time to repeat as often as directed, reduce the number in all the movements in which you have acquired the most rigidity of muscles. Cut the number of times one-half but increase the rigidity all you can. If you are too fleshy and inclined to be fat, increase rather than decrease the floor movements when lying on the back.

No. 16

Lie on back, legs straight, hand under head as shown in figure on right. Practice deep breathing by raising and lowering abdominal muscles, continue from three to five minutes. Tense the legs and raise them without bending knees until in position on right. Relax and lower to floor and repeat until muscles tire. Movement solely in hips.



No. 17

POISE. Tense muscles of shoulders, back and arms. Extend arm. Do not raise arms higher than head. Bring arm down from level of head to thigh. As one arm goes up, bring other down until it touches leg. Movement solely in shoulders. Repeat until muscles tire.

No. 18

POISE. Hook thumbs at back and tense muscles of shoulders, arms and back. Without raising body, lift shoulders as high as you can.

While in this position, make muscles of neck rigid and turn head slowly as far as you can to right, then as far as you can to left. Relax all muscles. Tense all muscles and pull shoulders down as far as you can. Repeat until muscle tire.

No. 19

POISE. Balance body with hand on stationary object. Lift right foot clear of floor. Tense right leg, slowly turn toes out as far as you can, then reverse and turn toes in. Movement solely at hip. Repeat with left leg. Continue until muscles tire.

No. 20

POISE. Make rigid muscles of back, shoulders, neck and arms. Slowly push right arm up as far as you can, then lower; keep up tensiety. Relax all muscles. Repeat movement with left arm. Continue until muscles tire.

SUMMARY.

If you have faithfully carried out the instructions and practiced all the movements heretofore given, your circulation has been quickened and all parts of the body are performing their natural functions. If you will devote from five to ten minutes daily, preferably at night before retiring, to the short course following, you will be able to keep your mind and body in a strong and healthful condition.

SHORT COURSE.

Do Nos. 1, 3, 4, 0, 6, 7, 00, 11, 12, 13, 14 and 15.

If you have found any of these exercises or others difficult to do, it would be well to pay particular attention to them until you have fully mastered them.

The floor exercises are particularly beneficial, and while doing them take position shown in figure No. 16, and while in this position take from three to five long and strong inhalations, forcing abdomen up as you inhale and contracting same muscles as you exhale. You will find that by practicing this breathing exercise you will do all the others with greater ease and better results.

If you feel in need of other movements they will be furnished you free charge if you will address me as below. I have found the exercises described and illustrated in these pages ample to meet all wants. If they seem to fail in your case it may be that you have not correctly interpreted instructions. Any information you may desire will be cheerfully furnished. Address

G. H. GEIGER, M. D.

118 East Second St., DAYTON, OHIO.

JAN 18 1904

LIBRARY OF CONGRESS



0 029 714 134 A